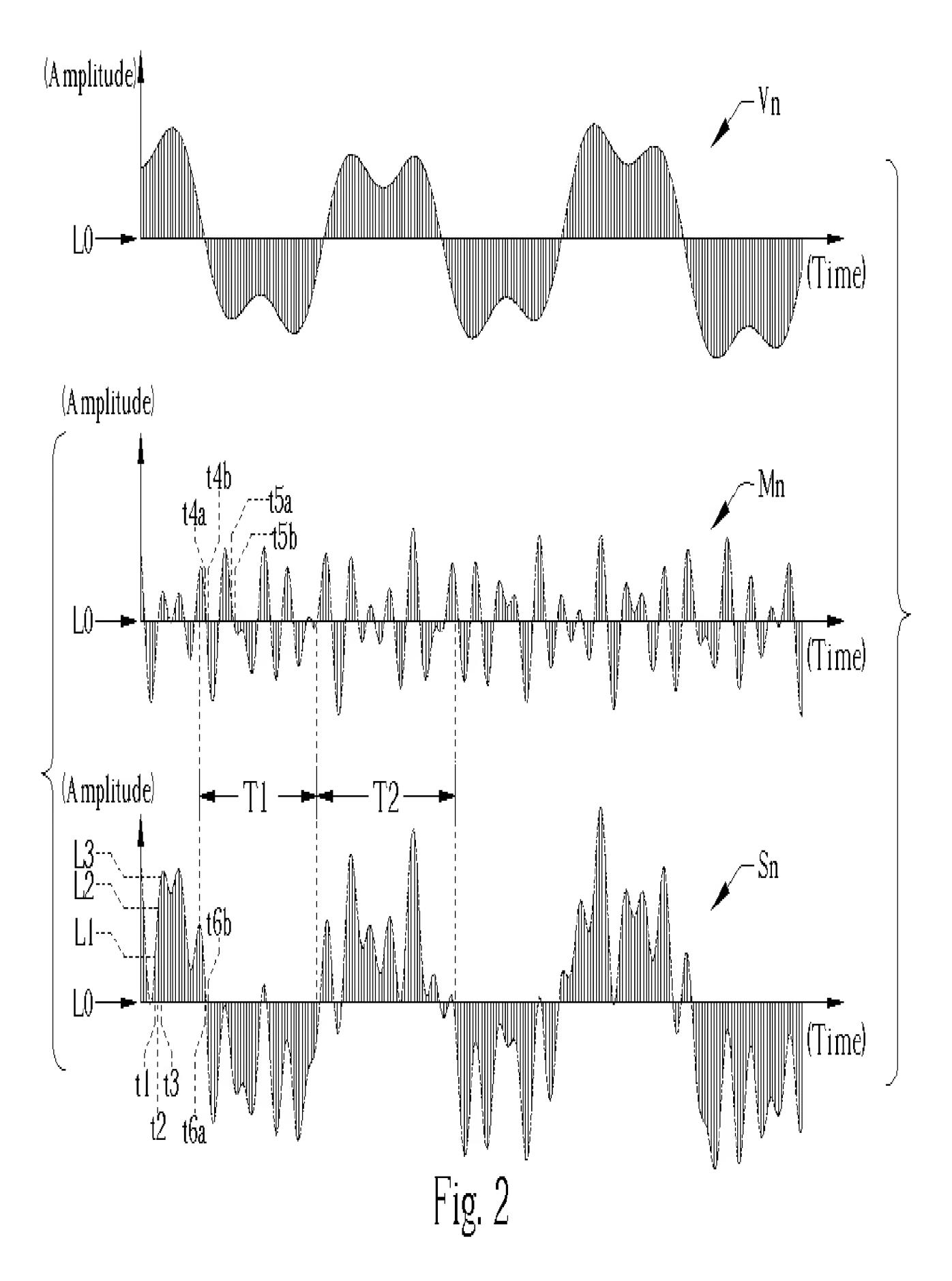
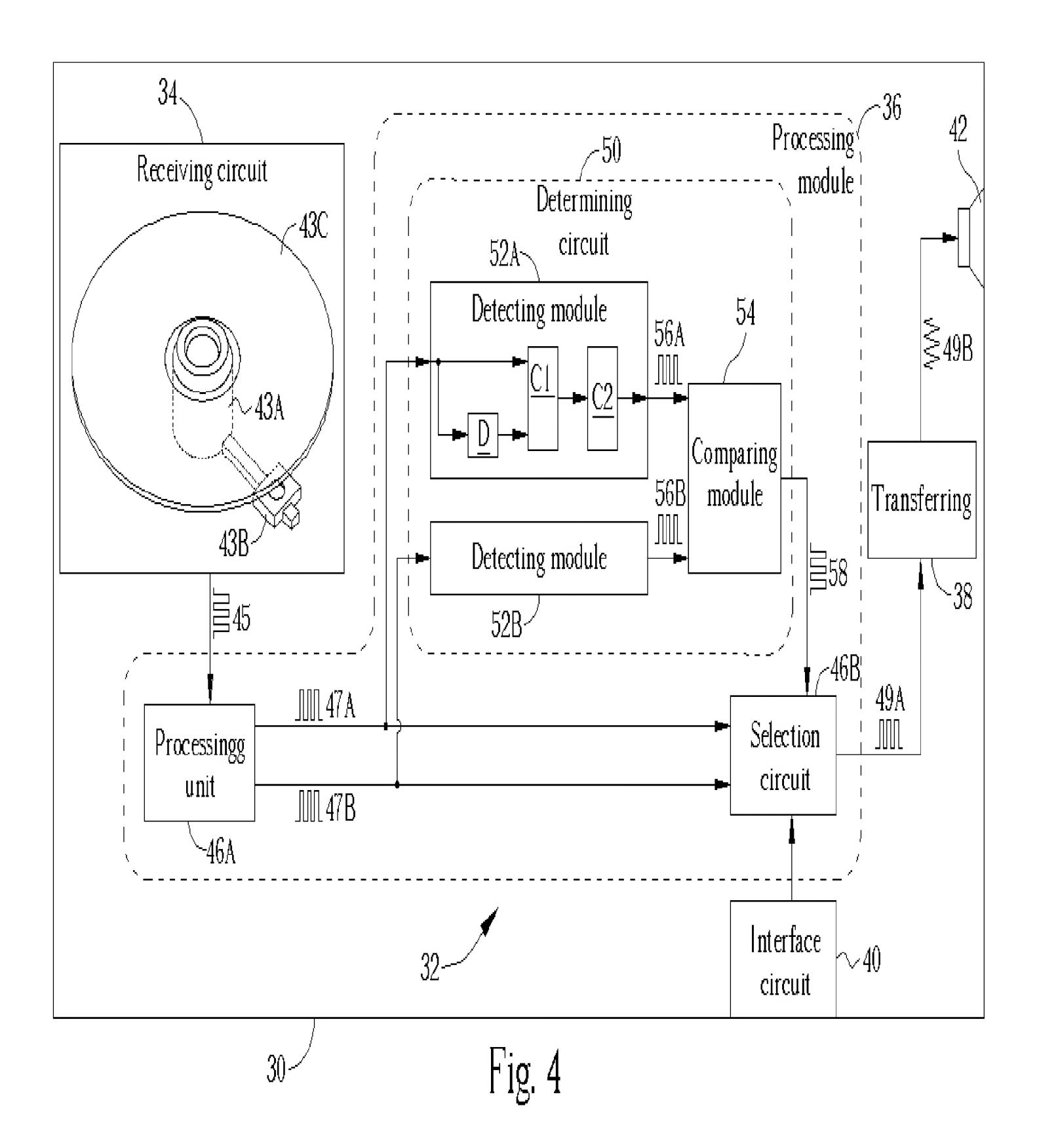


Fig. 1 Prior art



```
LnZCR = 0;
           Pre Sample = Ln(1);
            for (I=2; I<SampleLength; I++) {
Al Part
             if (Pre Sample*Ln(I)<0) LnZCR++;
             Pre Sample=Ln(I);
            RnZCR = 0;
           Pre Sample = Rn(1);
            for (I=2; I<SampleLength; I++) {
A2 Part
             if (Pre Sample*Rn(I)<0) RnZCR++;
             Pre Sample=Rn(I);
           if (LnZCR > (RnZCR + threshold))
            =>[vocal in Rn]
            else if (RnZCR > (LnZCR + threshold))
A3 Part
            =>[vocal in Ln]
            else [vocal in both Rn and Ln] or [vocal not in either
            Rn and Ln]
```

Fig. 3



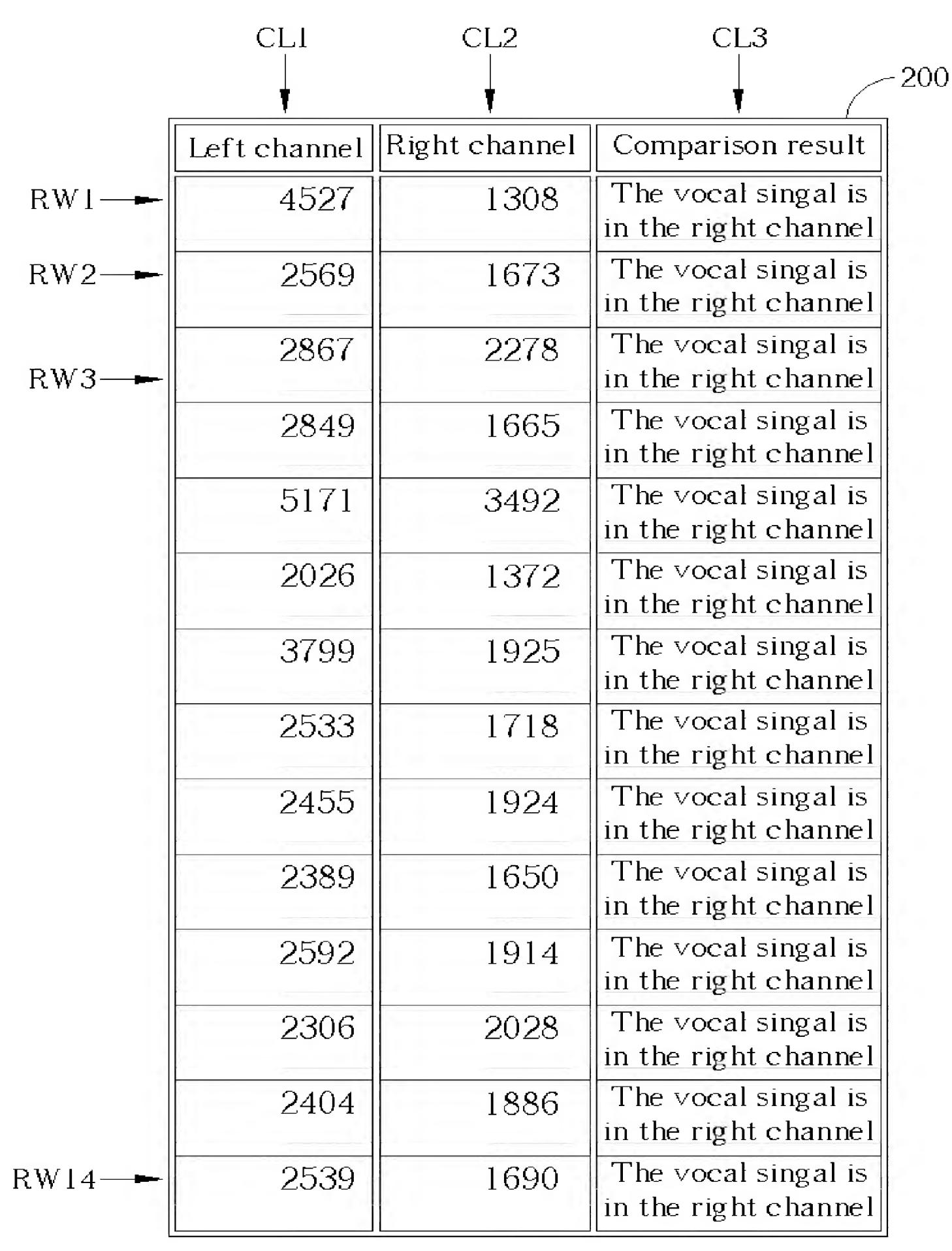


Fig. 5